

THE POULTRY MESSENGER

& WESTERN FRUIT-GROWER.

Vol. 1,

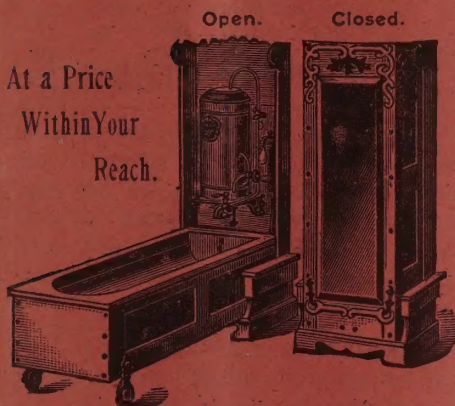
AURELIA, IOWA, AUGUST, 1895.

No. 6.

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WHEN TO BEGIN.

The best time to make a beginning in the poultry business is the latter part of the summer or the fall. One who has had no experience with chickens will meet with many discouraging mishaps and failures if he makes his start in the spring.

Good stock can be bought for less money in the summer or fall than at any other time. It would probably be safe to say that it can then be had for not more than one-half what would be asked for it late in the winter or in the spring. Room must be made for the young stock, and breeders are looking about them for a market for their one and two year old fowls. As a rule we are not in favor of keeping stock which is over two years old, but we think it would be the part of wisdom for the beginner to buy birds of this age when he was able to get something very choice for little money. It would be to his advantage to choose something younger if he could procure it on equally favorable terms; but when breeding pens are being broken up and disposed of the birds will usually be of this age. As a general thing the keepers of the best fancy poultry do not fit up their breeding pens with pullets.

The winter will afford the beginner a good opportunity of getting acquainted with his fowls, and learning something about their disposition and habits. This will all come handy to him in the work of the following summer. He will probably not get any profit from the fowls the first winter. If he succeeds in doing so he will do better than the most of those who have gone over the ground before him. He is serving his apprenticeship, and should not expect anything but the very lowest wages. He may be one of the lucky fellows who make poultry pay handsomely from the start, but it is very unsafe for him to calculate on anything of that kind. Of course he has his theo-

ries in regard to winter eggs, and this first winter will be likely to demonstrate to him how provokingly and unaccountably the most carefully formed theories fail to work out in practice. He will learn several other things about poultry keeping which will be a revelation to him, though he may be the best read poultryman in the township.

This first winter will open the eyes of the beginner to some extent as to his fitness for the business. In many of its features he will find that it is not what he thought it was. Practical poultry keeping amid the cold and snows of winter is somewhat different from what it appears to be when comfortably seated indoors and reading about it in the books and papers. There are many disagreeable things about it even to those who are in a general way fond of it. It is well for the beginner to find out about these things before he gets into it too deeply. If they strike him very disagreeably—if he thinks that he cannot “stand the racket,” he is then in a position to get out of it without serious loss. In short, the winter is a favorable time for the beginner to gather an experience which will be valuable to him in various ways, and on many accounts is the best time of the year for him to make his start in poultry keeping if it is his purpose to make a permanent business of it.

COSTLY POULTRY.

There was a breeding pen of Buff Wyandottes at the last New York poultry show for which the owner refused an offer of \$400. A Brown Leghorn cockeral sold for \$100, and many other birds changed hands at prices ranging from \$50 to \$75.

The buyers of these birds at these high prices were not greenhorns. They knew what they were about. Don't waste any sympathy in the belief that they will lose money by the operation. It is not at all likely that they will stand in need of it.

A THEORY SMASHER.

The editor of the Reliable Poultry Journal has been east inspecting some of the large poultry farms in the New England states. And now he tells us through his journal that on some of these farms as many as 500 chickens are allowed to run in one flock. The great majority of old poultry raisers when they read this will feel very tired. They have believed and taught for years that twenty-five hens are the most which should be allowed to run in one flock. And now to be told that 500 are kept together down east where they are supposed to know all about poultry culture, and that these flocks are very profitable to their owners! It is hard for them to believe it. They wouldn't believe it if the information did not come from such a reliable source. The western readers of the Journal are anxiously waiting for the editor to tell how they do it.

Many poultry keepers know that their chicks haven't got lice on them until they find one of the chicks dead, and on making an examination they see the lice scampering over it by the dozen. The owner of poultry should make it a part of his business to subject the chicks to some treatment for lice at regular intervals. No matter how well the coop may be cared for, it will not do to trust to that altogether. They lice are pretty sure to be on hand unless something more is done to keep them down.

You cannot well overdo the matter of variety in storing up the winter supply of food for the chickens. The more changes you can make the better, always keeping in mind the danger of overfeeding.

Will the reader do us the kindness to send us the names of a few of his poultry keeping friends. We will appreciate the favor.

A WRONG IDEA.

While insect powder is a handy thing to have about the poultry houses, and while it has done a wonderful amount of good, we have excellent reasons for believing that in some particulars it is indirectly responsible for no small degree of harm. Having acquired the reputation of being a "sure death" to lice, there are many breeders of an indolent habit who have accepted this as a sufficient reason for neglecting other important means of keeping down these pests. We have lately visited several poultry houses which were disgracefully filthy, and on hinting to the owner that if they were not better attended to he would shortly have an army of lice to contend with, we were met with the reply: "Oh, no, there is not the slightest danger of that; I keep insect powder on hand all the time, and once a week I make the rounds of the coops and give everything a thorough dusting."

While fully admitting all the virtues of insect powder, we say that it had better never been invented if its use is supposed to take the place of good, honest work about the poultry houses by which alone the cleanliness so important to the health of the fowls can be secured. We should not like to put our entire dependence upon insect powder even for keeping the lice at a distance, and it certainly never occurred to us that it would also do the work of shovel, scraper and broom, and save us all the labor of keeping the poultry houses clean. And the poultry keeper who goes on that idea will be sure to get left.

While on the subject of insect powder, the writer wants to say that it is not a whit more effective as a destroyer of lice than the somewhat old fashioned remedy of kerosene and lard. The powder can be more quickly applied, and for setting hens it is undoubtedly preferable to the other; but aside from this it has no advantages over the kerosene and lard. If two or three thorough applications are made of the latter in the course of the summer, and in the meantime the coops are reasonably well cared for, there will be no trouble with the lice. And the person doing this will not be anything out of pocket for the remedy. We have no prejudice against the insect powder. It is all right as far as it goes. But the impression seems to be growing that it

is vastly ahead of all other preparations for the destruction of lice, and the tendency is to resort to its use for this purpose to the exclusion of everything else. The consequence is that legions of poultry breeders who are new to the business, and the state of whose finances require that they should observe the closest economy in their expenditures, are being made to believe that insect powder is one of the essentials of poultry keeping. For the benefit of persons so situated we want to say that such is not the case. You don't have to have insect powder. It is a convenience, and that is the most that can be said of it. It is one of the things which can be done without.

BOILED WHEAT.

Did the reader ever try the effect of giving the young chickens a feed of boiled wheat once a day? We believe that there is considerable advantage in giving them such a ration. While it is contended by many people who have carefully experimented in the matter that the feeding value of the grains is not increased by boiling, we believe it is generally admitted that its mechanical condition is improved thereby in a way which makes it more easily digested and assimilated. At any rate we are sure that we cannot be mistaken in thinking that we always obtain better results by giving a feed of boiled wheat once a day over what we can gain by giving it to them in an uncooked state. It is not much of a task to boil the grain. The old iron kettle which should be a part of the outfit of everyone who keeps poultry is as good as anything which can be made use of for boiling the grain in, and it will hold enough to do a flock of a hundred chickens for several days.

Keep some crude carbolic acid on hand, and during the summer use it so as to keep the poultry houses strongly impregnated with the scent. Everything considered, it is our best disinfectant. It keeps down foul odors, and destroys the germs of diseases which may be lurking about the premises. No matter how attentive one may be to the poultry houses in the way of securing cleanliness, they cannot entirely do away with unpleasant odors there without the use of something of this nature. Carbolic acid is not expensive. We can afford to use it freely.

UNPROFITABLE STOCK.

In looking over his flock of young chickens now, the poultry keeper will see here and there a stunted specimen which is less than half the size of its mates of the same brood. These chicks are almost without feathers, and what few are adhering in little patches to their sunburned bodies are standing out at every angle, and serve no other purpose than to add to their grotesque appearance. The chicks are active in their movements, are good feeders, and there is nothing which goes to show that they are not in perfect health. But it is plain that there has been something seriously wrong with them some time, and while they are alive and well at present, they have got a backset from which they will never recover. Such chickens will never pay for their feed, and if the owner does not want to keep them at a loss, the proper thing for him to do is to destroy them at once. We are well satisfied that they cannot be made into profitable fowls. We have tried what extra care and attention would do for them, but have never succeeded in making anything of them worth keeping on the place. And this shows the importance of keeping the chicks steadily growing from the day that they are hatched. If they become the victims of any ailment which stops their growth even for the briefest period they are permanently injured, and if this stoppage has gone far enough to produce the stunting effect above described, they are worthless. The poultryman will get very few specimens of this kind on his hands if the flock is given regular attention of the right kind. But little chicks which are stuffed one day and stunted the next are pretty sure to go that way.

Empty and refill the watering troughs twice a day. This is often enough provided the troughs are shaded from the direct rays of the sun. Make sure that there is always water in the troughs. We have known full grown chickens to actually die of thirst as the result of being deprived of water for only a few hours during the hot weather of August.

Get at least 25 cents for your young chickens or go out of the business. Nobody can afford to raise chickens to the frying age and sell them for less than 25 cents. Let those who want them for less eat bacon and corned beef.

THE COMMON HEN.

There are many people who hold to the notion that the common scrub hen possesses qualities which better fit her for the farmer's use than any of the thoroughbreds. In the matter of hardiness she is supposed to have the advantage of the improved breeds. We are disposed to grant this claim of the admirers of the scrub hen, if by hardiness is meant a capacity to stand more ill usage than can be endured by fowls of better breeding. But granting that this is true, we do not consider that that establishes her right to a place on the farms if it is the only or even the principal point of merit which she possesses. Neglected or abused fowls, whether scrubs or fullbloods; are not profitable. Any one who treats fowls in that way would be better off without them. Enlightened farmers do not choose their cattle or their hogs with a view to their capacity to stand abuse or neglect. A breeder of cattle or hogs would gain nothing by trying to recommend his stock to the farmers of the west by such qualities as these.

We are often told that the scrub hen is a greater "rustler" than the thoroughbred, but this is certainly an error. Of course she will do more in that line than the heavier breeds like the Brahmas or Cochins, but not any more than the Plymouth Rocks, Langshans or Wyandottes, if the latter are rightly managed and not overfed. And, considered simply as a rustler, the common hen can hardly be considered a match for the Leghorn, and other of the non-setting breeds. The farmer needs a fowl of rustling propensities. There is a quantity of feed which will go to waste on the farms if it is not eaten by the chickens. The kind of fowls best suited to his needs are those of an active habit, that will forage about and find this food and convert it into eggs. For this reason he should keep the medium sized or smaller breeds. The latter are not to be recommended as a farmer's fowl from the fact that their flesh is inferior to that of the medium or general purpose breeds.

Farmers like chicken, if not as well as the preachers, at least well enough to entitle them to the best to be had when they take a notion to have it served on their table. And while speaking of the table qualities of fowls we want to say that the scrub has no merit what-

ever when considered in that light. People who are accustomed to feasting on Plymouth Rock, Wyandotte, or even Brahmas or Cochins, would regard it as a very sad experience in the eating line if they happened to be placed under circumstances which would compel them to partake of the tasteless and stringy flesh of the scrub.

The writer has no disposition to do any injustice to the scrub hen. People who cannot afford to keep anything better had better keep the scrubs. If given any sort of a chance they will more than pay their way. But the scrub is getting credit for things which do not belong to her. She will, perhaps, manage to live under certain kinds of bad treatment which would be fatal to the thoroughbred, but while so treated she will return no profit to the owner. The strongest argument of many of her defenders seems to be that she refuses to die under conditions of abuse which would be expected to kill anything else belonging to the feathered race, and is therefore particularly well suited to the farmers' purposes. This is rather tough on the farmers. The MESSENGER refuses to be a party to the implication that they are not fit to have any poultry about them except such as are habituated to neglect and abuse. All farmers do not neglect their poultry. The great majority of them do not. In the families of two-thirds of the farmers there are those who could give pointers on poultry culture to the writers who are everlastingly harping about the neglected poultry of the farms. The farmer has the same need of fowls which will make a proper return for good treatment that others have. He can turn the scrub to no better use than others can. It is little short of an insult to say that for the above reasons the scrub is better adapted to the farmers requirements than the thoroughbreds.

Sow cabbage and turnip seed in the waste nooks and corners about the premises which would otherwise grow up to weeds. The chickens will seek these feeding spots in preference to the garden or flower beds, and will get a considerable part of their living from them. A spot of ground only a few yards square can in this way be made to yield a large amount of green feed.

See our clubbing list.

WHAT IS A GOOD EGG YIELD?

People who have had no experience with poultry are inclined to expect too much from hens in the way of egg-production. A hen that will produce a hundred and thirty eggs in a year is a good layer. One that will produce from a hundred and fifty to a hundred and seventy-five, is away ahead of the average even of fowls that have no value except what attaches to them by reason of their egg-laying qualities. Nothing is more certain than that the egg-producing capacity will be materially improved in time as the result of the continual efforts of poultrymen to that end. The hens of the future will look with contempt upon the best records in that line which have been made up to date. But for the present, anyone who has a flock of hens which yields him a hundred and forty eggs apiece within a year may set it down as reasonably certain that he has as fine a lot of layers as any of his neighbors, no matter what the neighbors may claim to have. We do not mean to say that no flock can be made to do better than this. We know that the common run of flocks, even of those which are made up of the choicest laying stock, do not do as well. As we have said before, the lowest figure which we have named is a high average for a flock. The majority of hens do not lay much above a hundred eggs a year. Let no one about to embark in the poultry business be deceived in regard to the yield of eggs from a flock of good hens. Those accustomed to the care of poultry know that the above statement in relation to this matter is about as near the truth as it can be told.

Feed old corn sparingly during the hot weather. Wheat and oats are better. We are not "agin" corn as a feed for chickens to the same extent as are many others, and we could not be persuaded to dispense with it altogether even in July and August, and yet we are well convinced that one can easily make use of more of it than is good for the fowls in summer.

During the hot summer weather the dust bath will be more to the liking of the fowls if the surface of it is dampened. Don't mix the wet and dry earth together. Leave that for the hens to do according to their own notion.

KEEP THE BEST.

A poultry breeder makes a serious mistake when he allows himself to send the largest and most thrifty of his young chickens to market. When prices are high and city dealers are making you tempting offers for all the spring chickens of good size which you can be persuaded to part with, it is hard to resist filling your shipping coops with the best that you have on hand. This is especially the case if you happen to stand in pressing need of ready money, and we have known several poultrymen in our time who were fixed that way. But the breeder who is in the habit of yielding to this kind of a temptation will soon have his premises stocked with a very inferior lot of fowls. It cannot be otherwise when the choicest specimens of the flock are being sent away every year, and the breeding stock is composed of birds of medium and low grade.

This is one of the things which is responsible in a great measure for the poor quality of the poultry to be seen on many of the farms. The largest, most thrifty and best appearing fowls have been sent away every year. The late hatched, stunted and misshapen chickens were regarded good enough for home use. We have even heard people say that such stock answered the purpose of layers, and were just as good for table use as fowls that were larger and better looking. There are some people who really do not know any better than this.

The time of year is now here when breeders who rear poultry in the ordinary way are ready to send some of their young stock to market. In looking over their stock they will see a number of birds which are considerably better than the average of the flock. These are the birds which should not be disposed of at any price. To be sure they will materially add to the "heft" of the shipment, and in proportion to their weight will bring more money now than at any time in the future; but for all that, the owner will be no money ahead by selling them. It is a very shortsighted policy which permits such considerations as these to take out of the flock its choicest birds. It does not matter if one is not making a business of poultry keeping. If he is keeping poultry at all it should be his aim to keep it at a profit. If he cannot

do this he had better give over the attempt and buy what he needs. There is no profit in a flock of poultry which is the outgrowth of such a policy as we have been speaking of. Every farmer knows that there is no profit in the runty pigs, and we know good farmers who make no attempt to raise them, but remove them from the litter and destroy them as soon as born. But some of these same farmers reverse the rule when it comes to the chickens. They make way with the tops and keep the runts. They will tell you that there is no profit in the chickens anyway, and the best plan is to get out of them what you can. It is a well established fact that sensible farmers can show less sense in the treatment of their poultry than anything else about the farm.

THOROUGHbred SCRUBS.

A poultryman cannot get anything more worthless in the chicken line on his hands than a lot of degenerated, rundown thoroughbreds. Such fowls may frequently be seen on the village lots or running at large on the farms. Their presence is usually evidence of the fact that some years before somebody suffered a sudden attack of the chicken fever and procured a setting of eggs from some breeder of thoroughbred fowls. Before the chickens that were hatched from these eggs had fairly donned their winter clothes, the party who sent for the eggs had lost his interest in chickens and was wrestling with some other kind of fever. The chickens were left to lookout pretty much for themselves, were given no regular attention, and not even provided with a half decent house in which to shelter themselves. The weaker ones of the flock were eaten up by the lice, but a portion of the brood managed to make a live of it, and showed up in the spring in a weakened and stunted, if not in a diseased condition. This is the breeding stock for the next season, and, mind you, it is thoroughbred stock. There is no change in the mode of treatment, and they come forth at the end of another year having a little more ragged, stunted and run down at the heel appearance than the season before. And still they are thoroughbreds, though a lot of healthy scrubs are so much their superior that they should be ashamed to be seen in their company.

It would be very unfortunate if about

this time the owner should suffer a relapse of the chicken fever. It often happens that way. He hears of somebody who is selling eggs from thoroughbred fowls, and is getting three or five dollars a setting for all that he can persuade his hens to lay. Why can't he rake in a few honest dollars the same way? When he comes to think of it he is all prepared for the business, for he has a large flock of thoroughbreds ready at hand. And so he advertises, and gets orders, and pockets the dollars; and his victims are filled with disgust, and say things which we would not dare to print in the MESSENGER.

There is a good deal of thoroughbred stock of this pattern put upon the market. It is the poorest kind of stock which any breeder can have on his premises. It is utterly worthless.

AN AUGUST DISEASE.

August is the month when the danger of an outbreak of the cholera is the greatest. It has never been made very plain just what the cholera is, but we know that the fowls are liable to become the victims of a deadly disease at that time which does not prevail to an equal extent at any other time of the year. It may not in any true sense be the cholera, but the genuine article could not do its work any better.

Everything which would have a tendency to produce dysentery in the flock should be avoided as nearly as possible this month. Above all things avoid sloppy food. If ground stuff is given be sure that no more of the liquid with which it is mixed is used than will just suffice to make it loosely hold together. If much whole grain is given to fowls which are confined in yards, don't forget the grit. The flint-like hardness of whole corn or wheat at this season imposes a severer task on the digestive apparatus of the fowls than they can well perform without the aid of sharp grit. For the want of the grit indigestion or dysentery may follow, and a considerable part of the flock be lost. If the fowls are running at large the grit is not so important, as they will pick up enough gravel or cinders to answer their needs. The writer lost many fine birds before he became fully convinced that disease of the above character is a certainty among fowls that are kept in yards in summer and continually fed on whole grain and not given access to grit in some form.

CHICKENS IN THE GARDEN.

A correspondent writes us from Grand Rapids, Michigan, and wants to know if it is a fact that a flock of chickens can be allowed the run of the garden without injury to the stuff growing therein. She had always understood that chickens were very destructive to the vegetable garden, but had lately seen an article stating that this was all a mistake, and that the chickens could be given the run of the garden without damage to it provided they were not starved into feeding on the vegetables. This correspondent would like to keep a small flock of chickens, but living on a small city lot she would have no run for them except her garden, and she sets too much value on that to run the risk of having it destroyed.

People who have a vegetable garden which is worth anything to them had better not undertake to keep chickens in it. We know of nothing which will fill them so full of hatred towards chickens as to do this. It matters not how well the chickens are fed they will soon destroy more than they are worth if allowed to range about in a good garden. They will show a great liking for the radish and turnip tops, the cabbage, tomatoes and sweet corn, and will eat and waste these things in a manner most provoking to the owner. Gardening and poultry keeping do not go well together on the same spot of ground. The two make a good combination where the conveniences are at hand for excluding the chickens from the garden when things there are in a state to be damaged by them, but garden truck and chickens will not flourish on the same spot of ground at the same time. It is wrong for anyone to teach such a thing, as it is misleading to those without experience in the matter, and is liable to subject them to much disappointment and loss. We would not admit an article to the columns of the MESSENGER which gave encouragement to the idea that the chickens could be given the freedom of the garden without doing any injury to it.

FOR WINTER PASTURE.

Along towards the latter part of this month clean up all the small vacant patches of ground convenient to the poultry house and sow them to rye. The spot where the early lettuce, radishes or peas were grown will be better

put to this use than allowed to grow up to weeds during the balance of the summer. If there is a patch of sweet corn near by sow rye over the patch and run the one horse cultivator between the rows. By the time that the corn is ready to remove from the ground the rye will be several inches high, and will afford the chickens good picking all through the fall, and even in winter when the snow is off the ground. It will be the first green thing above the ground in the spring, and will materially help out in furnishing the fowls with the variety of feed which they so much need at that time. We can think of no other way in which poultry keepers can benefit their flock to the same extent with as little labor and expense as they can by providing it with a winter pasture somewhat after the manner above suggested.

A WONDERFUL EGG YIELD.

Last winter the National Stockman and Farmer offered a series of prizes for the largest number of eggs produced by a given number of hens within a year. The first prize went to W. S. Stevens, of Mechanicstown, Ohio. The winners were a flock of White Plymouth Rocks which laid an average of 289 eggs per hen for the year. This is a remarkable yield of eggs. In answer to a question regarding the method of feeding by which such surprising results were obtained, Mr. Stevens said:

"They have free access to oyster shells and grit. I give them twice a week fresh granulated bone. Their food consists of a warm breakfast, equal parts of bran, white middlings and chopped corn and oats, and into this I put for them fine beef meal. At noon I feed wheat, which is thrown into the scratching shed. This gives them exercise in obtaining their noon meal. In the evening they are fed whole corn. During the time from the first of April to the first of November, I feed the same, with this change; In the morning their mash is mixed with cold water, and in the evening wheat takes the place of corn. Cleanliness is a very important matter in regard to the maintenance of health for your fowls. I clean the house twice a week during the winter, and in the summer every other day. I have been breeding the Plymouth Rocks now for five years, and have not as yet had any disease, and I attribute it to cleanliness and proper care."

TOO MUCH GRAIN.

It is not a good plan to be continually stuffing the young chickens with grain. It is to be inferred that everybody understands the importance of frequent feedings during the first two or three weeks of their lives. But after they are from eight to ten weeks old twice a day is often enough to feed them. It will be understood that this applies only to the young stock which is to be kept over for winter layers. Give them full liberty and compel them to pick up a large part of their living on the range. In so doing they will acquire greater hardiness of constitution, and will be in better condition in every way to give a more prompt and satisfactory response to the winter treatment than if they had had access to all the grain which they could eat during the summer and fall. The stock which is intended for market cannot be fed too high, but the others will be more profitable if fed sparingly enough to make them exercise themselves for much of what they get. The MESSENGER made some reference to this matter in its last number, but it is a seasonable subject, and what was then said will bear repeating. The writer has learned from personal experience that it is a matter of importance. He can recall instances where he has rendered a flock of pullets perfectly worthless as winter layers by his failure to observe the rule here laid down. We were not mistaken in charging the trouble to this cause. Young chickens will not seriously suffer for food if they get nothing but what they can find on a good range, and they would be better used that way than made fat, lazy and good for nothing by overfeeding.

If you have any market stock large enough to sell now, sell it. Don't hold it till fall and expect that you will thereby get more money for it. Let it go at the earliest moment that it is of suitable size and condition for market. The poultryman will lose ten times where he will gain once by keeping his young market stock till the beginning of cold weather.

A Brown Leghorn hen which was killed at the age of ten years had two thousand eggs to her credit. Her owner was a Massachusetts poultryman who had kept a careful record from the time that the hen laid her first egg.

POULTRY AT THE COUNTY FAIR.

All breeders of thoroughbred poultry should make it a point to have something on exhibition at the county fair. It is to their interest to get as many other people into the notion of keeping thoroughbred poultry as possible. They should not fail to make use of such a good opportunity as the county fair affords them of getting in some effective work against the scrub hen. For this purpose we regard the fairs as having some advantages over the regular poultry shows. The attendance at the fairs is largely made up of farmers. Many farmers go to the fair who do not go to any other large gathering of people during the year. The scrub hen finds her warmest friends among the farmers. The majority of city and village poultrymen keep thoroughbreds. But the greater proportion of the farmers stick to the scrubs. Many of them believe that under the treatment which they are able to give their poultry they will be better off with the scrubs than the thoroughbreds. Others don't think much about it. They have the scrubs on hand and do not deem it worth while to make a change. They do not look upon the poultry as of much value anyhow, and they have an idea that all chickens are pretty much alike. They have never sought opportunities of looking over the various breeds and taking note of their differences. Make the array of thoroughbreds as large as possible. The farmer will see them here and he probably will not see them when you take them to the poultry show. If the appearance is pleasing to the farmer it may set him to investigating the comparative merits of the scrubs and the thoroughbreds. Get him started in this direction, and he is in a fair way to become a chicken crank of greater or less degree. If he can be made to interest himself in poultry, to give to it the thought that he does to other things pertaining to his business, he will soon be convinced that it will be to his advantage to keep thoroughbreds instead of scrubs. He is then ready to become the customer of some breeder of thoroughbred poultry, and this is the point at which the matter becomes interesting to the keeper of the thoroughbreds.

The facilities for showing poultry at the county fairs are not always what they should be, but if the managers are

given the assurance of the breeders that they will make an exhibit worthy of the best accommodations which can be provided, they will get what they ask for. Breeders everywhere should resolve to make this one of the most interesting features of the fair.

DROP THE ENTHUSIASM.

We often see it stated that Mr. Smith or Mr. Brown is full of newly acquired enthusiasm in regard to poultry keeping, and is making preparations to go into the business on a somewhat extensive scale. If Mr. Smith or Mr. Brown has fully decided upon this step the first thing he wants to do is to get rid of his enthusiasm. Sooner or later he is bound to lose it anyway, and it will be best for him to put it away from him at the start. If he could exchange it for a first-class article of horse sense, or of old fashioned gumption he would strike a great bargain. Enthusiasm is of no earthly use in the poultry yard. When the poultryman is hard at work fighting the dirt and the lice it will be noticed that he does not have much enthusiasm about him. Enthusiasm does not mix in with that kind of business.

What the poultryman most needs is a capacity for continuous work, a buoyant and persevering spirit which does not become despondent or discouraged over unlooked for losses and disappointments, and a large amount of practical common sense. He will meet with failures and losses without number which will be a severe trial to his patience and courage, and he will have occasion to ask himself the question more than once if it would not be best to give over the attempt to make a success of the business in which he is engaged. When he gets to this point his enthusiasm is all gone, and his despondency would be less if he had had but little of it to start with.

In the common affairs of life the enthusiastic man is seldom a successful man. He is usually wanting in the qualities which go to make up the stayer. He is a rusher when the skies are clear and the outlook bright and full of promise, but breaks all to pieces against the first obstacle which stands in the way of his progress. He has no courage to bear up against misfortunes and battle against adverse circumstances. For this reason we say that the person who proposes to make a bu-

siness of poultry keeping had better look the situation over from the standpoint of sound common sense, and divest himself as far as possible of enthusiasm. Within certain limits the enthusiasm is all right, but the enthusiastic beginner is apt to let it run away with him. This is the rock upon which the hopes of many hundred young poultrymen have been wrecked.

KEROSENE EMULSION.

We find that many people do not understand the process of making kerosene emulsion. We have several times recommended it as a means of keeping lice out of the poultry house, and after doing so have usually received letters from one or more subscribers asking how to prepare it. The directions are repeated here, and we advise those who think they may have use for the emulsion some time to cut the piece out and paste it up, as we did years ago; or if they preserve the papers, to mark the number in a way that it will be recognized when they need it.

Dissolve one pound of good soap in a gallon of boiling water. When the soap is all dissolved take away from the stove and add one gallon of kerosene. To form the emulsion the mixture must be violently agitated. This is best done by a force pump, drawing the liquor out and pumping it back into the vessel. When this is completed add ten or twelve gallons of water, and the mixture is ready for use. A sprayer pump with a perforated nozzle is the quickest way of applying it, but if this is not at hand it may be done with a common watering can.

FOR CHOLERA.

A lady of our acquaintance, and a perfectly truthful one, writes us that when one of her chickens shows symptoms of cholera she pours half a teaspoonful of kerosene down its throat, and the result is that in a few hours all symptoms of the disease have disappeared. The same thing has been recommended to us from another source which appears to be reliable, and yet we would hesitate to employ the remedy except in extreme cases, or on stock of but little value. As a matter of experiment, however, we look upon it as worth trying.

The eggs which are laid by hens that are allowed all the milk they will eat are likely to have light colored yolks.

CORRESPONDENCE.

Starve Them Out.

Editor MESSENGER:

We noted your article in the last number of the MESSENGER showing up the danger of shipping poultry to commission houses without first finding out if the parties to whom they are sent are honest and trustworthy. In times past we ourselves have been somewhat careless in this particular, and have suffered not a little for our carelessness. We have been tempted to believe sometimes that commission merchants are the greatest robbers on earth. What you say is true, that the business offers peculiar temptations for rascals to engage in it, and that is why the proportion of such people engaged in it is larger than in any other line of business. But there are honest commission men to be found in every city of any size, and any shipper can find them if he will seek them in the right way. We say in every city of any size. It has been our ill fortune to exhaust the list of commission merchants in a third rate city and not find one who came anywhere near to honest dealing with his patrons. Where such a state of things as this is found, the poultryman can almost always find some reliable butcher in the city who will take his stock and pay for it what it is worth. We advise those whose experience has been similar to our own to try this plan. In most of the smaller cities the butchers have trouble in getting enough of poultry to supply their trade. We have this on the authority of those in the business. Except in the fall, when there is usually a temporary glut of the market, there is for the most part, a scarcity of poultry, and they are required to pay stiff prices to the commission men when other sources of supply run short. And we grieve to say that the shipper does not always participate in the benefits which accrue from these good prices. We want to see these dead beat commission merchants done away with. As long as breeders continue to ship to them and suffer in silence the robberies which they put upon them, they will have an abiding place on every market. The surest way to get rid of them is to stop feeding them. Poultry breeders have it in their power to starve them out.

E. B.

Sheldon, Iowa.

A Valuable Remedy.

Editor MESSENGER:

I have received a copy of the Messenger and am well pleased with it. I like the tone of the articles, they seem to be written by persons who have had experience, and know what they are talking about. I enclose you 25 cents; the paper is worth more than that.

I notice the paragraph saying that you will be pleased to receive short articles from poultry-keepers treating of their experience with their flocks. I shall tell you of a remedy that I have tried for chicken cholera which is the best thing I have ever used for that disease. It has done so well for me I am anxious that others should know about it. Here it is: Glycerine and water each one half ounce; carbolic acid ten drops. When the symptoms of cholera first appear give five drops, and repeat the dose after twelve hours.

With me this has never failed to put a stop to the cholera, and all of my acquaintances who have tried it at my suggestion make the same report about it. The remedy is not original with me. I saw it in a paper about six years ago, and cut it out and laid it away. Not long after that the cholera got among my fowls, and as I did not know what else to do I thought I would give it a trial. It proved a "sovereign remedy" then and I have never felt the need of anything better as a remedy for that fatal disease since that time. I do not want to keep such a good thing all to myself, and so send it to you that others may have the benefit of it.

Mrs. A. H. R.

Ellsworth, Minn.

Broilers Without Incubator or Brooder.

Editor MESSENGER:

I saw in the Messenger some time ago something about late hatched chickens. The object of the article was to show that hens hatched in May or June would be as good winter layers as those hatched in March and April, unless they were of the largest breeds.

I made a little experiment last fall that paid me very well. I think some of your readers would be interested in hearing about it. The experiment was with late hatched chickens, but these were not intended for winter layers. I thought I would try and see what I could do with broilers hatched and reared without incubator or brooder.

So I set a lot of hens in August and brought off over a hundred chicks between the middle and the last of September. I allowed them to run with the hens in the usual way until the first of November, and then transferred them to a warm, low roofed house which was made of old stuff picked up on the farm and banked up on all sides to the roof with dirt or straw. The roof was also straw and slough hay piled up in the center several feet high and sloping off on all sides to the eaves. Not a crevice was left any place where the wind or snow could get in. The house had a large window on the south side which was hung on hinges and also answered the purpose of a door. I never had chicks to do better than these did. They were healthy and grew fast, and I sold them for a very long price in February. It was a most successful experiment. I tore away the straw from the house and burned it in the spring, and shall put on a fresh lot this fall for the flock which I intend to hatch out in September.

We want to say that any one living in the country within a hundred miles of a city can just as well add sixty or more dollars to their income in this way as not. It is some trouble to care for a flock of this kind in the winter, but the expense is small and the profits are large.

S. M.

Whitewater, Wis.

A GOOD SUMMER FEED.

As soon as the sweet corn is in the roasting ear state cut some of it from the cob and feed it to the hens that are shut up in the yards. If the tender husk is also chopped up fine the chickens will eat it with great relish. A clover cutter is the most suitable thing for cutting the husks into proper lengths, but a common straw cutter, such as is used about the horse barns, can be made to answer the purpose very well. Where neither of these are to be had it can be done with a sharp hatchet or a corn knife, though this is a slow process and can only be made use of for a small flock. If the corn which has been removed from the cob is mixed with these cuttings, the whole dampened and stirred up with some meal and a little salt, it will compose a first-class summer feed for laying hens. We have practiced this for several years with good results.

The Poultry Messenger,

AND

Western Fruit-Grower.

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Whatever Farm Poultry may think of the new poultry papers which have lately come upon the stage, and however much it may try to set its readers against these youthful aspirants to public favor, the fact remains that there are none too many poultry papers. All intelligent poultry keepers know this, and it is of no use for Farm Poultry to try to blind them to that fact. Every new poultry paper means a greater development of the poultry industry. Every new venture of this character will find a subscriber in some one who never before took a poultry paper, and will inoculate him in a more or less serious manner with the hen fever. This subscriber will become the patron of some keeper of thoroughbred poultry, for the readers of the poultry papers are never the friends of scrubs.

Practical poultry keepers have every thing to gain and nothing to lose by the addition of new poultry papers to the list of those already in the field. It stands them in hand to give every encouragement to them which they can afford. If they cannot become their patrons, they can at least give them a handshake and a pleasant word of welcome. And this is what they generally do. We occasionally hear of some fellow who is feeling very badly because so many new poultry papers are starting up. He always expresses his regrets through Farm Poultry. He is only repeating parrott-like the cue which was taught him by the ill-natured and mean-spirited editor of that paper. But all sensible poultrymen show their friendliness towards the new papers, and treat them white.

Every boy wants a bicycle, but it is not every boy that has the means to

gratify his wants in this particular. We can put such boys on to a scheme by which they can earn a bicycle in a few days working for the MESSENGER. Write to us enclosing stamp for reply.

Conley & Co., of La Salle, Illinois, increase the size of their advertisement in this number, and will stay with us for a year. This firm has some young stock for sale at present, and also some one year old birds, that are strictly first-class. We can assure our readers that they will be treated right in their dealings with Conley & Co.

Those who write for the MESSENGER are practical poultrymen. The things which they teach are the results of their own experience. They are among their flocks every day, and, we might say, every hour in the day. They are constantly observing, experimenting and testing. These people have their theories based upon facts which they have gathered by constant association with their fowls. None are so well equipped as they for writing articles which the readers of the poultry papers can turn to their benefit. They are not all persons of the highest education. Very few of them have held professorships in the universities. But they know something about chickens, and are able to tell what they know in a way to make themselves understood. Their articles are practical, and we could publish a bushel of letters from our readers telling of the many useful things they have learned from the paper during the short time it has been coming to them. We do not like to take up space for these letters, but we thoroughly enjoy receiving them, and when we get to reading them over cannot help giving the horn a little toot now and then.

THE PEERLESS STEAM COOKER.

A good modern steam cooker is a thing of no less importance in a household than a washing machine or a clothes wringer. Only those who have had an opportunity of testing them can fully appreciate their usefulness. With one of these cookers everything for the table can be prepared better and with far less labor and discomfort than is possible in the ordinary way. Every family would have a steam cooker if their value was better understood. Every one buys them after having once seen them in operation, or at least decides to do so as soon as they can lay aside a

few dollars for that purpose. The Peerless is the best steam cooker which is made. It has points of superiority over all others which have been put upon the market. An agent of the manufacturers will shortly call upon the people in the neighborhood of Aurelia, and request an opportunity to demonstrate to them the good qualities of this cooker. Withhold your orders until you see the Peerless.

The August number of The Delineator is called the Midsummer Number, and contains a large variety of interesting matter suitable for the Season. Ladies who have deferred completing their Summer wardrobes will be particularly pleased with this number, for the styles were never more dainty and appropriate. A special article is devoted to Dressing for Stout Ladies, and another to Bathing and Swimming, with illustrations of the Latest Fashions in Bathing Costumes. Mrs. Roger A. Prior's article on the Etiquette of Letter-Writing bears the stamp of authority, and will be helpful to every one who reads it; and the paper on Art Needle Work in the Employments Series will direct the attention of many women to this occupation as a means of livelihood. The Ontario Ladies' College is interestingly described by An Ex-Graduate, the popular Kindergarten Series is continued by Mrs. Sara Miller Kirby, and Harriet Keith Fobes contributes an artistic paper in the series on Burnt Work. There is a very practical article on Cleaning and Renovating Laces, Feathers and Gloves, and a variety of useful information is given in the monthly talk Around the Tea Table. The housekeeper will find some new recipes in Seasonable Cookery, and much that will help to make housework easier in Things the Housewife Should Know. There is also an excellent article on the Newest Books, and others on Floral Work for August and The Relations of Mother and Son. New designs are illustrated and described in Knitting, Tatting, Lace Making, etc.

The Delineator is the Woman's Favorite Magazine, and is issued by the Famous Fashion Publishers, The Butterick Publishing Co., (Limited), at 7 to 17 West Thirteenth Street, New York, at the remarkably low rate of \$1.00 for a Years' Subscription, or 15 Cents per Copy.

Of all Family Magazines it is the Great Caterer to Domestic Needs, and can be recommended for its cheapness, usefulness, beauty, freshness and utility.

Notes About Chickens and Fruits, And Answers to Queries.

Address all communications for this department to O. P. Greer, Bourbon, Indiana, and mention the MESSENGER.

I have always heard that berry growers produce the best crops in this northern country by laying the vines down in the fall and covering them with earth. I followed this plan last fall with a quarter of an acre of Snyder blackberries. The plants were set out the spring before, and owing to the prolonged drouth many of them made only a feeble growth, but those which occupied the moist ground were good strong plants in the fall. I got them down without breaking by bending mostly in the root as directed, and covered with an inch or two of earth. A few of them were uncovered the middle of April, but the greater part of them were not taken up until after the first of May. The ground at this time was moist. The canes looked bright and healthy when first taken up, but within three days thereafter they had shriveled up and died. There are not two dozen live plants left in the patch, I had been taught that a crop of berries was assured by this means of protecting the plants, provided it was seasonable, and I have searched the reports in vain for some suggestion which would enable me to account for this unlooked for result. A. Pender.

Cherokee, Iowa.

The above I consider a very important question, and I hope that some of our northern growers will throw some light on this subject, and if possible offer some suggestions that will account for the death of Mr. Pender's plants. Living in northern Indiana we do not have to protect the canes of the blackberry, and I could offer no experience of my own. Mr. R. M. Kellogg's plan is to take a shovelful of earth from the outside, and gently press the canes over with a fork and the foot till they lay on the ground, when enough earth is put on to hold them there. The tops of the next bush come on the roots of the first. Finish covering with a mouldboard plow. In the spring they are raised easily with a fork. It is done very rapidly. Mr. C. A. Green says by digging on one side of the row and loosening the soil and bending the canes to the ground, covering lightly with earth. Be careful that no roots are exposed. In the early spring straighten them up, and commence cultivation as soon as soil is fit to work. The Snyder blackberry is the favorite in this part of the country. It winter kills sometimes

but not enough to require winter protection. It always produces well if the season is favorable. The Gregg raspberry takes the lead here over all the thoroughly tested varieties. The Conrath, Palmer and a number of other kinds are being tested but have not fruited long enough to decide on their merit.

This is the driest spring that northern Indiana people have ever known. Creeks are dry that were never dry before at this time of the year, in fact it is as dry here now as was ever known before at any time of the year with the exception of the fall of 1871. Strawberries was almost on entire failure, the heavy frosts and continued drouth almost entirely ruined the crop. Haverland, Bubach and Parker Earle had a few nice berries. Warfield was most affected by the drouth, and was not worth picking. Jesse was all killed by the frost. Lovett, Princess and Greenville did not stand the frost and drouth as well as the first three named above. The Marshall and Brandywine I did not fruit, this being my first season for them.

American Prolific is the name of a new chicken which a Pennsylvania man has invented after eight years of scientific crossing and breeding. The Red Pile Leghorn is another new comer which it is said outstrips everything in existence for beauty. They have the true Leghorn shape and style. The male birds have a white breast streaked with chestnut red, hackle and saddle of rich orange red, each feather striped through the center with red, back a rich crimson, wing a combination of deep red, white and chestnut red, the tail is pure white, legs, comb and earlobes same as Brown Leghorn. The female is pure white in color except breast which is deep chestnut red, and neck, which is lemon yellow striped with white. The originator says they are large, fully up to the best buffs in this respect, lay a large chalky white egg, and are true Leghorn blood. The combination of colors in the Red Pile Leghorn is certainly the most beautiful of that of any fowl.

The state, county, and township fairs will soon commence. Be ready with some of your best birds and exhibit them. Farmers are beginning to realize that good poultry pays better than anything else that they can keep on the farm.

THE POULTRY HOUSE FLOOR.

Have you a poultry house that suits you in every particular, or have you one which you think could be remodelled in a way that would make it more profitable to you and more comfortable to your fowls? Or have you by this time concluded to erect a new house after arriving at the conclusion that poultry pays?

I do not profess to know just how to erect a model poultry house, but I do know that I as well as others have made a mistake by putting floors in our houses, and upon this point I wish to express some views which are based upon an actual experience.

A poultry house with a board floor is in this latitude always a cold one unless a solid foundation has been placed underneath, and this is too expensive for the average poultry raiser. And by the way this is intended for the average and not the expert poultry breeder. The expert poultry breeder is supposed to know all about the best method of constructing a poultry house. Again, a board floor is a perfect harbor for vermin of all kinds. The greatest care can hardly keep them out of it. It is hard to keep clean, especially in winter when the droppings freeze and adhere to floor, making their removal difficult until a "soft spell" of weather arrives. The coating of earth will not altogether prevent this unless it is very thick. If deep enough to do so it does away with all of the supposed advantages of the boards below. They might as well have been left out in the first place.

Vermin will not find a lodgment in a dirt floor if any sort of pains are taken to keep them out. The dust which accumulates there is not a favorite harboring place for them. It produces in them a "tired feeling" which makes them anxious to get away from it.

A good way to arrange for a dirt floor is to take 2-inch plank of the proper width and nailing them to the inside of the sill allow the other edge to rest upon the ground. Then fill in with earth to upper edge of plank. Thus you have a good cheap floor and foundation combined, something which will last for years, and can be easily and quickly renewed when necessary. The upper four inches of this floor should be scraped off and replaced with fresh dirt every fall. M. PARROTT.

THE WESTERN Fruit Grower

STRAWBERRY PLANTS.

The Difference Between Good and Bad Plants—Why the One Cost So Much More Than the Other.

An old run out strawberry bed cannot be made to furnish the best plants for starting a new bed. Most people who grow strawberries in a small way, and renew their plantings from beds on their own grounds, make use of plants like those above mentioned, and are not fully aware of the disadvantages of so doing. Such plants will never produce the largest crops of berries, nor berries of the best quality. They are deficient in vigor, and all the care and attention which can be bestowed upon them will not give to them the value possessed by those which have been propagated in accordance with a more approved system. They come from an exhausted and runout parentage, and in their general qualities will be what might be expected from their origin.

The young plants which are sold by nurseries of the best class are taken from beds which have never borne a crop of berries. All of the strength of the plants has gone into the runners, and it is only the best of the plants along these runners which are regarded suitable for starting new beds, or are furnished to customers for that purpose. A hundred such plants as these are worth a wagon load of those which are taken at random from a bed which has been cropped until its productive powers have all been expended. It stands to reason that there can be no comparison between these two classes of plants. It needs no argument to convince intelligent people of that fact.

It is a matter of wonder to many people why there is such a marked difference in the prices of plants offered for sale by different nurseries. It is not difficult to understand this when we take into consideration the different processes by which the plants may have been grown. It is not always safe to assume that the highest priced plants are invariably the best. There can be fraud in this as in nearly everything else, but sensible people can easily perceive that plants of the best quality

cannot be produced according to the plan above referred to and sold in competition with the low grade stock which has nothing to recommend it to the buyer except its cheapness.

The resident of the village or the farmer who is anxious to possess a small strawberry patch for family use cannot always be a competent judge of the quality of the plants which he buys. To his untrained sight the inferior plants may appear just as good as the more valuable ones. The only safe course for such persons to follow is to buy of some concern which has an established reputation for fair dealing. In so doing they will probably pay about double what they could obtain them for elsewhere, but they will discover the wisdom of having paid the greater price when the plants come into bearing. A hundred strawberry plants will furnish a small family with all the small fruit of that kind which it needs. It is poor policy to try to economize on the few dollars which they will cost at a first-class nursery. One hundred really good plants are worth to the purchaser five hundred inferior ones. The latter are sure to be a disappointment to him, and are dear at any price.

WATERING YOUNG TREES.

During a dry time it will pay to water newly planted trees. But the manner in which this is usually done is productive of more injury than good. After the water has been poured about the roots of the trees and has soaked away, the surface of the ground should be gone over with a hoe and the soil loosened to the depth of a couple of inches. If the top of the ground is to be left in that hardened and baked condition which always results from the application of water by artificial means during a dry time, the tree has not been benefited any by the attempt to relieve it from the effects of the drouth. Probably a better plan is to remove a couple of inches of the top soil before the water is poured about the tree, and after the water has been absorbed, to return it to its place. This will not be necessary if the trees are mulched with straw or other similar material. Where there is no mulch the dry loose earth takes its place, and it is believed by many orchardists that this answers the purpose of a mulch fully as well as the straw.

A young tree which is suffering from the effects of a prolonged drouth and is making a weakly growth, may be relieved by wrapping the stem with several thicknesses of coarse cloth, like an old grain sack, and saturating it with water. The good effects of this treatment will usually be observed within a few days.

Water should not be applied to trees in the morning or during the heat of the day. The late afternoon should be set aside for this kind of work. The reader may think that this fact is so well understood that to give expression to such a caution here is wholly unnecessary. But the writer has met with people who hold to the belief that the early morning is preferable to the afternoon or evening for work of this nature. These people will not be persuaded of their mistake notwithstanding the thing which they advocate is contrary to the experience of more than nine-tenths of the best informed orchardists.

It is always dangerous to water an evergreen during a dry time, and if it is not done with good judgement, the tree is almost sure to be killed. To dash water about the roots of an evergreen in the common way, using no means to prevent the surface of the ground from becoming baked, will certainly lead to the death of the tree if often repeated. While some good authorities advise against watering evergreens under any circumstances, our experience has been that it can be safely done by either of the processes above described.

When it is decided to water give the ground a thorough soaking, and let it rest at that until you are sure that the tree is again suffering for the want of water. This is better than making repeated applications in small quantities.

Old residents of Iowa contend that an acre of ground planted to Black Walnut trees will at the end of twenty years be worth \$3,000. Twenty years seems like a long time to wait, and yet how many men now in middle life could thus provide a competence for old age. Could the same amount of ground be put to any other use by which the owner could obtain as large a profit?

The western fruit grower should not risk any expensive experiments. Leave that to the experiment stations. That is what they are for.

RUSSIAN TREES.

The fact that a tree is of Russian origin is no proof that it will prove hardy in Iowa, or in any part of the northwest. Many of the Russian importations wilt down like a weed before our northern winters. We have obtained a few good fruits from Russia, and some of our most noted horticulturists entertain strong hopes of obtaining many more from the same source; but people make a great mistake in supposing that everything which comes from Russia must necessarily be hardy and productive here. If such were the case the fruit growing problem which confronts the people of the northwest would be a very simple thing. As a matter of fact there would be no problem about it.

Many varieties of apples which do well in Russia hundreds of miles north of the latitude of Iowa are an utter failure when planted out here. The question of hardiness is not determined altogether by the degree of cold which the trees have withstood at the place of their origin. Many of the Russians which have proven tender here came from a locality where the cold is much more intense than it is in Iowa. Their failure is due to other conditions of the climate than the cold.

The fact should be better understood that some of the Russians are good, and that others are utterly worthless for planting anywhere in the northwest. The supposed hardiness of all the Russians has given occasion for the practice of much deceit and fraud. Very many people who had lost all faith in native varieties have bought and planted Russians under a false representation. The Russians will prove even more disappointing than the natives unless intelligent discrimination is shown in the selection of varieties. Fraudulent tree peddlers have worked this Russian business for all there has been in it. It is about time that it was played out as one of their favorite means of imposing upon the credulity of their patrons,

THE KING BIRD.

The king bird, or bee martin, is looked upon by many people as a thief and a robber, who believe that war should be made upon him wherever he appears. Those who keep bees are especially prejudiced against the king bird, looking upon him as their greatest enemy.

And yet this much maligned bird has made out a very good case for himself through some of the best known and most learned horticulturists of the land. These men say that he is not only serviceable to the fruit grower by reason of his insect destroying habits, but is even a benefit to the bee keeper who is ever seeking his destruction. It is not denied that he does devour the bees, and it is even admitted that the loss of an entire colony is to be occasionally charged to him when the queen in her one flight into the air happens to become his prey. But this bird does not destroy bees to the extent that is commonly supposed. Other insects constitute a large portion of his food, and among them creatures which are far more destructive of the honey bee than he is. At the agricultural department in Washington the stomachs of 171 king birds were examined, and only 14 out of the 171 were found to contain traces of the honey bee. Fifty bees in all were taken from the stomachs, and forty of these were positively identified as drones, and only four of the other ten identified as workers, six being too far decomposed to show what they were. The stomachs of these same birds contained a number of what are known among bee keepers as "robber flies." One of these big flies has been seen to kill 140 honey bees within a few hours. The king birds are very fond of these flies, and their presence about the hives is often for the purpose of feeding on the flies when it is supposed that they have been attracted there by the bees. There is a good side to the king bird for which he has never been given proper credit. The little damage which he does is not to be compared to his usefulness in other directions.

SUMMER PLANTED STRAWBERRIES.

A strawberry bed can sometimes be started in late summer, but in this part of the west such plantings are a failure more often than they are a success. If we are favored with a few good rains about that time, the plants will take root at once, and if properly protected during the winter, will be in a condition to bear a crop the following season. But the ground is usually dry here in August, and we do not get any fall rains worth the name. The past three seasons have been especially unfavorable for that kind of planting. It is only oc-

asionally that it will succeed, and this fact should not be lost sight of by those who attempt it. The expense of starting a small bed is very slight, and those whose aim is only to obtain a supply of berries for family use can afford to take the risk if the indications are at all favorable. But one must not be disappointed if his time and labor goes for nothing.

If there is an old strawberry bed on the place, or on that of a near neighbor, plants can be taken up with a shovelful of earth and reset without checking their growth in the least. This is a somewhat tedious job, but it is work which one can well afford to do who has none of this fruit growing on his premises. Of course such plants are much inferior to those which would be obtained of a good nursery in the regular season, but they are very far from being worthless. Such a plan gives a person the advantage of a year in obtaining berries of his own planting, and if one is at all careful in the removal of the plants there will be no interruption of their growth except in times of the severest drouth.

BLACKBERRIES.

During a dry time when the blackberries are in danger of drying up on the bushes, this tendency can be overcome to a great extent by frequent cultivation up to the very day of picking. For this purpose a small toothed cultivator should be used, and it should be run very shallow. One who has never tried this will be surprised at the difference which it makes in the crop. The work should be done just before night, and never in the forenoon. Some of the most successful growers make a regular practice of going through the patch in this way at least three times a week if the ground is very dry just before the time that the fruit will ripen.

Even the professionals are sometimes badly deceived in regard to the value of a new fruit. The Shaffer raspberry was not a promising variety when its introduction was first undertaken by Mr. Chas. A. Green, and many practical horticulturists whose opinions he sought in regard to it, advised him to destroy the entire stock. The Shaffer raspberry is a most valuable variety, and is gaining in popularity wherever it has been introduced.

Blackberries may be made to yield one hundred bushels to the acre.

Brief Mention.

Use flour of sulphur on bushes which are affected with the mildew. The sulphur should be well sprinkled on the leaves as well as under the bushes.

M. E. Hinkley, of Marcus, Iowa, President of the State Horticultural Society, says "the Kenyon meets all requirements for a good red raspberry. I like it for my purpose better than anything else I have tested since the days of the Brandywine."

It is claimed that the Marlboro is the only raspberry which will never kill on our western prairies. It needs no protection even in the most exposed situations. Unfortunately the berry is of a rather poor quality, and on that account will never become very popular.

Fruit growing is easy in any locality if one is not particular as to the quality of the fruit produced. The finest and best fruits are not obtained anywhere by accident. He who aims to obtain the best will be obliged to pay for it both in time and money.

A Mr. Haveland has refused \$75,000 for 160 acres of land in the vicinity of Fort Dodge. One hundred and forty acres of the land are planted to apple trees, and it is these trees which give to it this high value. Who was it that said that it doesn't pay to plant apple trees in northern Iowa?

Low bottom lands are the most unfavorable locations for an orchard. Those who have no better place than this should make choice of a very short list of the most thoroughly tested varieties. In this part of the west their main dependence must be the Oldenburg and some of the crabs. If the top soil is underlaid with sand and gravel the chances of getting good apples of any kind are rather poor.

The native plums are the best. Buyers make a mistake in allowing themselves to be persuaded to purchase plums of European or Japan origin. Even in the eastern markets the native sorts are taking the lead, and are in better demand than those from trees of foreign origin. Any one who wants to grow plums either for home use or for sale cannot do better than to plant Wyant, Wolf, Hawkeye, De Soto, Cheney and other varieties not so well known as these, but which are equally as good.

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THE CENTRAL NURSERIES.

One who recently made a tour through Dallas county writes to the State Register as follows in regard to one of the patrons of this paper:

"Dallas county has many flourishing industries, but we wish to tell you of one we had the pleasure of visiting during our day in the country, viz., the Central Nurseries, which have had such a phenomenal growth, belonging to Messrs. John Wragg & Son, near the little village of Waukee, where the Fort Dodge and Fonda lines cross each other. Wragg & Sons started in a limited way some twelve or fifteen years ago, but now they rank among the leading nurseries in the state. They do not confine their business to the state, but do a very extensive business with the adjoining states as well. The best guarantee of fair dealing with

their customers lies in the fact that this enterprising firm is made up of Christian gentlemen, men of large heart and brain, up-to-date men in everything which pertains to success in their business. One of their specialties is the Wragg cherry, which has attained an enviable reputation among fruit growers, their other specialties being the very best of everything in their line, as the writer can attest from actual experience."

Plant some apple trees every spring. A place can always be found for a few trees. Trees are continually being lost from accident or other causes. An orchard in this western country is old at twenty years. Do not wait until it begins to fail from old age before giving a start to younger trees. Plant trees every year, and you will always have trees about you which are in their prime.

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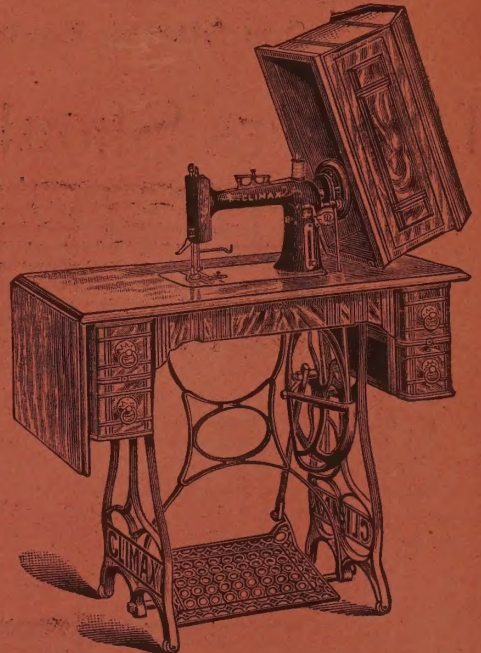
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